

## **Data Center operation protects their clients' credibility and profitability through network documentation and labeling standards.**

CDW Berbee, with enterprise hosting centers based in Madison, Wisconsin and Minneapolis, Minnesota, is a technology solutions provider offering web hosting, network design, infrastructure management, and disaster recovery. Their two enterprise hosting centers house 7,000 servers - making a clear, concise, scalable labeling and documentation system absolutely essential.

CDW Berbee operates on the principle that their clients' web presence and physical data (including e-mails, back-up files, and more) are a vital part of their enterprise, essential to their profitability.

According to Eric Patterson, Enterprise Hosting Center Manager at Berbee, "A day without web site service can be catastrophic to your corporate image." For some companies, a day of business interruption, whether it's from an equipment failure, a power failure, or any other source, can cost them millions of dollars in revenue and take a huge toll on their credibility with customers.

To avoid disasters like these, companies must consider ways to build reliability into their data communications systems. A well-protected, reliable system should feature:

- System redundancy
- Standardized, scalable network documentation
- Durable, clear labeling at every point (cable, device, power source, etc.)
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"Redundancy equals reliability. For example, each of our servers has at least two network and power cables," Patterson said. "Often there are even two servers for one purpose, so if any component fails, the system remains reliable."

Another big concern in terms of system reliability is process and standards maturity. A lot of businesses don't have effective methods and standards for cable labeling because they haven't designed their system to grow with the company, making their documentation less consistent and reliable.

Patterson offers an example from his own experience at CDW Berbee: "We started with ten servers, each named after a national park. Now we have 7,000 servers - we needed to come up with a naming convention that was scalable. State parks obviously won't work now."

**A company whose system uses a whimsical or idiosyncratic naming and labeling standard will find it difficult to maintain and update their system as it grows.** Or worse, a labeling standard without any intuitive logic or effective documentation method simply won't be meaningful. That's why it's important that any standard's policies and practices be considered a living system - it must be able to grow and evolve to meet the company's needs.

"As technology changes, there is a lot of change in the environment. If you don't have that consistency it can become a big problem," said Patterson. "If a company has 21,000 data cables, you need to know without any ambiguity where all of those go. Even a small

number of mislabeled or unlabeled cables cause enormous problems."

An effective cable management and network documentation standard **can save companies hours or even days** when it comes to locating a failed cable, performing equipment upgrades, or undertaking an inventory of company assets. Thorough labeling and documentation eliminates the need for cable tracing - the process of following a cable from its source device throughout the system to its end point. In an environment with thousands of cables, hand tracing is a time-consuming, invasive process with a high risk of confusion and error.

"The first step is understanding the background work," Patterson said. "We document the make/model/serial number of every device. Once the device has an asset number and name, they are labeled on the front and back. One of the labels is a barcode used primarily for inventory control. The label on the cable matches the server and device, including the switch name and switch port. I can look at any end of any cable and tell which device and which data port it's connected to at both ends."

Patterson points out that **even one label can make the difference between disaster and productivity for a business**. "We're acutely aware of the problem of someone pressing the wrong power button and shutting the company down for a day or more just because that button didn't have a label on it. A small label costing only pennies can be a very important thing."

Despite the advantages of labeling and documentation, many companies simply don't budget for making a change if they haven't had a solid labeling and documentation system in place all along. While most companies understand the need, the task of labeling or relabeling an existing system tends to wait until there's a big problem. However, there are logical opportunities to take on the task, such as relocation of offices or servers.

Industry standards, such as ANSI/TIA/EIA 606A and 942, offer guidelines to companies that wish to develop a working cable management and network documentation system. Patterson points out that these standards are broad: "They are designed to apply to all businesses. You have to understand your own needs, use the standard where you can and deviate where you must. At CDW Berbee, we adopt those standards as much as possible and then go above and beyond."

Brady offers many products that help companies cost-effectively label and document their datacom systems, including the [IP™ Series Printer System](#), [Brady Handheld Labelers](#), [LabelMark™ Software](#), [NetDoct™ Cable Management Software](#), and a complete range of 606A-compliant label materials for wire and cable labeling, face plates, 110-blocks, and more. For more information about Brady's labeling and documentation solutions for the data communications industry, visit [www.bradyid.com/datacom](http://www.bradyid.com/datacom) or call 1-888-272-3946.

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